

**R315. Environmental Quality, Solid and Hazardous Waste.**

**R315-302. Solid Waste Facility Location Standards, General Facility Requirements, and Closure Requirements.**

**R315-302-1. Location Standards for Disposal Facilities.**

(1) Applicability.

(a) These standards apply to each new solid waste disposal facility and any existing solid waste disposal facility seeking facility expansion, including:

(i) Class I, II, and V Landfills;

(ii) Class III Landfills as specified in Rule R315-304;

(iii) Class IV and VI Landfills as specified in Rule R315-305;

(iv) piles that are to be closed as landfills; and

(v) Incinerators as specified in Rule R315-306.

(b) These standards, except for Subsection R315-302-1(2)(f) or unless otherwise noted, do not apply to:

(i) an existing facility;

(ii) a transfer station or a drop box facility;

(iii) a pile used for storage;

(iv) composting or utilization of sludge or other solid waste on land; or

(v) a hazardous waste disposal sites regulated by Rules R315-1 through R315-50 and Rule R315-101.

(2) Location Standards. Each applicable solid waste facility shall be subject to the following location standards.

(a) Land Use Compatibility. No new facility shall be located within:

(i) one thousand feet of a:

(A) national, state, county, or city park, monument, or recreation area;

(B) designated wilderness or wilderness study area;

(C) wild and scenic river area; or

(D) stream, lake, or reservoir;

(ii) ecologically and scientifically significant natural areas, including wildlife management areas and habitat for threatened or endangered species as designated pursuant to the Endangered Species Act of 1982;

(iii) farmland classified or evaluated as "prime," "unique," or of "statewide importance" by the U.S. Department of Agriculture Soil Conservation Service under the Prime Farmland Protection Act;

(iv) one-fourth mile of:

(A) existing permanent dwellings, residential areas, and other incompatible structures such as schools or churches unless otherwise allowed by local zoning or ordinance; and

(B) historic structures or properties listed or eligible to be listed in the State or National Register of Historic Places;

(v) ten thousand feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used by only piston-type aircraft unless the owner or operator demonstrates that the facility design and operation will not increase the likelihood of bird/aircraft collisions. Every new and existing disposal facility is subject to this requirement. If a new landfill or a lateral expansion of an existing landfill is located within six miles of an airport runway end, the owner or

operator must notify the affected airport and the Federal Aviation Administration; or

(vi) areas with respect to archeological sites that would violate Section 9-8-404.

(b) Geology.

(i) No new facility or lateral expansion of an existing facility shall be located in a subsidence area, a dam failure flood area, above an underground mine, above a salt dome, above a salt bed, or on or adjacent to geologic features which could compromise the structural integrity of the facility.

(ii) Holocene Fault Areas. A new facility or a lateral expansions of an existing facility shall not be located within 200 feet of a Holocene fault unless the owner or operator demonstrates to the Executive Secretary that an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the unit and will be protective of human health and the environment.

(iii) Seismic Impact Zones. A new facility or a lateral expansion of an existing facility shall not be located in seismic impact zones unless the owner or operator demonstrates to the satisfaction of the Executive Secretary that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

(iv) Unstable Areas. The owner or operator of an existing facility, a lateral expansion of an existing facility, or a new facility located in an unstable area must demonstrate to the satisfaction of the Executive Secretary that engineering measures have been incorporated into the facility design to ensure that the integrity of the structural components of the facility will not be disrupted. The owner or operator must consider the following factors when determining whether an area is unstable:

(A) on-site or local soil conditions that may result in significant differential settling;

(B) on-site or local geologic or geomorphologic features; and

(C) on-site or local human-made features or events, both surface and subsurface.

(c) Surface Water.

(i) No new facility or lateral expansion of an existing facility shall be located on any public land that is being used by a public water system for water shed control for municipal drinking water purposes.

(ii) Floodplains. No new or existing facility shall be located in a floodplain unless the owner or operator demonstrates to the Executive Secretary that the unit will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of solid waste so as to pose a hazard to human health or the environment.

(d) Wetlands. No new facility or lateral expansion of an existing facility shall be located in wetlands unless the owner or operator demonstrates to the Executive Secretary that:

(i) where applicable under section 404 of the Clean Water Act or applicable State wetlands laws, the presumption that a

practicable alternative to the proposed landfill is available which does not involve wetlands is clearly rebutted;

(ii) the unit will not violate any applicable state water quality standard or section 307 of the Clean Water Act;

(iii) the unit will not jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of a critical habitat protected under the Endangered Species Act of 1973;

(iv) the unit will not cause or contribute to significant degradation of wetlands. The owner or operator must demonstrate the integrity of the unit and its ability to protect ecological resources by addressing the following factors:

(A) erosion, stability, and migration potential of native wetland soils, muds, and deposits used to support the unit;

(B) erosion, stability, and migration potential of dredged and fill materials used to support the unit;

(C) the volume and chemical nature of the waste managed in the unit;

(D) impacts on fish, wildlife, and other aquatic resources and their habitat from release of the solid waste;

(E) the potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment; and

(F) any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected;

(v) to the extent required under section 404 of the Clean Water Act or applicable state wetlands laws, steps have been taken to attempt to achieve no net loss of wetlands, as defined by acreage and function, by first avoiding impacts to wetlands to the maximum extent practicable as required by Subsection R315-302-1(2)(d)(i), then minimizing unavoidable impacts to the maximum extent practicable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions (e.g., restoration of existing degraded wetlands or creation of man-made wetlands); and

(vi) sufficient information is available to make a reasonable determination with respect to these demonstrations.

(e) Ground Water.

(i) No new facility or lateral expansion of an existing facility shall be located at a site:

(A) where the bottom of the lowest liner is less than five feet above the historical high level of ground water; or

(B) for a landfill that is not required to install a liner, the lowest level of waste must be at least ten feet above the historical high level of ground water.

(C) If the aquifer beneath a landfill contains ground water which has a Total Dissolved Solids (TDS) of 10,000 mg/l or greater and the landfill is constructed with a composite liner, the bottom of the lowest liner may be less than five feet above the historical high level of the ground water.

(ii) No new facility shall be located over a sole source aquifer as designated in 40 CFR 149.

(iii) No new facility shall be located over groundwater classed as IB under Section R317-6-3.3.

(iv) Unless all units of the proposed facility are constructed with a composite liner or other equivalent design approved by the Executive Secretary:

(A) a new facility located above any aquifer containing ground water which has a TDS content below 1,000 mg/l which does not exceed applicable ground water quality standards for any contaminant is permitted only where the depth to ground water is greater than 100 feet; or

(B) a new facility located above any aquifer containing ground water which has a TDS content between 1,000 and 3,000 mg/l and does not exceed applicable ground water quality standards for any contaminant is permitted only where the depth to ground water is 50 feet or greater.

(C) The applicant for the proposed facility will make the demonstration of ground water quality necessary to determine the appropriate aquifer classification.

(v) No new facility shall be located in designated drinking water source protection areas or, if no source protection area is designated, within a distance to existing drinking water wells or springs for public water supplies of 250 days ground water travel time. This requirement does not include on-site operation wells.

The applicant for the proposed facility will make the demonstration, acceptable to the Executive Secretary, of hydraulic conductivity and other information necessary to determine the 250 days ground water travel distance.

(vi) Ground Water Alternative.

(A) Subject to the ground water performance standard stated in Subsection R315-303-2(1), if a solid waste disposal facility is to be located over an area where the ground water has a TDS of 10,000 mg/l or greater, or where there is an extreme depth to ground water, or where there is a natural impermeable barrier above the ground water, or where there is no ground water, the Executive Secretary may approve, on a site specific basis, an alternative ground water monitoring system at the facility or may wave the ground water monitoring requirement. If ground water monitoring is waved the owner or operator shall make the demonstration stated in Subsection R315-308-1(3).

(B) A facility that has a ground water monitoring alternative approved under Subsection R315-302-1(2)(e)(vi) is subject to the ground water quality standards specified in Subsection R315-303-2(1) and the approved alternative shall be revoked by the Executive Secretary if the operation of the facility impacts ground water.

(f) Historic preservation survey requirement.

(i) Each new facility or expansion of an existing facility shall:

(A) have a notice of concurrence issued by the state historic preservation officer as provided for in Subsection 9-8-404(3)(a)(i); or

(B) show that the state historic preservation officer did not respond within 30 days to the submittal, to the officer, of an evaluation; or

(C) have received a joint analysis conducted as required by Subsection 9-8-404(2).

(ii) Each existing facility shall, for all areas of the site that have not been disturbed:

(A) have a notice of concurrence issued by the state historic preservation officer as provided for in Subsection 9-8-404(3)(a)(i); or

(B) show that the state historic preservation officer did not respond within 30 days to the submittal, to the officer, of an evaluation; or

(C) have received a joint analysis conducted as required by Subsection 9-8-404(2).

(3) Exemptions. Exemptions from the location standards with respect to airports, floodplains, wetlands, fault areas, seismic impact zones, and unstable areas cannot be granted. Exemptions from other location standards of Section R315-302-2 may be granted by the Executive Secretary on a site specific basis if it is determined that the exemption will cause no adverse impacts to human health or the environment.

(a) No exemption may be granted without application to the Executive Secretary.

(b) If an exemption is granted, a facility may be required to have a more stringent design, construction, monitoring program, or operational practice to protect human health or the environment.

(c) All applications for exemptions shall meet the conditions of Section R315-311-3 pertaining to public notice and comment period.

#### **R315-302-2. General Facility Requirements.**

(1) Applicability.

(a) Each new and existing solid waste facility for which a permit is required by Section R315-310-1, shall meet the applicable requirements of Section R315-302-2 or portions of Section R315-302-2 as required by Rules R315-304, R315-305, R315-306, R315-307, R315-312, R315-313, or R315-314.

(b) Any facility which stores waste in piles that is subject to the requirements of Rule R315-314 shall meet the applicable requirements of Section R315-302-2.

(c) Any recycling facility or composting facility subject to the standards of Rule R315-312 shall submit a plan of operation, to the Executive Secretary, that demonstrates compliance with the applicable standards of Section R315-302-2 and Rule R315-312.

(i) The submitted plan of operation shall be reviewed to determine compliance with the applicable standards of Section R315-302-2 and Rule R315-312.

(ii) Prior to the acceptance of waste or recyclable material or beginning operations at the facility, the owner or operator of a recycling or composting facility must receive notice from the Executive Secretary that the plan of operation meets the applicable standards of Section R315-302-2 and Rule R315-312.

(d) Any transfer station subject to the standards of Rule R315-313 shall submit a plan of operation to the Executive Secretary that demonstrates compliance with the applicable standards of Section R315-302-2 and Rule R315-313.

(i) The submitted plan of operation shall be reviewed to

determine compliance with the applicable standards of Section R315-302-2 and Rule R315-313.

(ii) Prior to the acceptance of waste or beginning operations at the facility, the owner or operator of a transfer station facility must receive notice from the Executive Secretary that the plan of operation meets the applicable standards of Section R315-302-2 and Rule R315-313.

(e) The requirements of Section R315-302-2 apply to industrial solid waste facilities as specified in Rule R315-304.

(f) A solid waste incinerator facility that meets the quantity limitation of Subsection R315-306-3(1)(b) shall meet the reporting requirements of Subsection R315-302-2(4).

(2) Plan of Operation. Each owner or operator shall develop, keep on file, and abide by a plan of operation approved by the Executive Secretary. The plan shall describe the facility's operation and shall convey to site operating personnel the concept of operation intended by the designer. The plan of operation shall be available for inspection at the request of the Executive Secretary or his authorized representative. The facility must be operated in accordance with the plan. Each plan of operation shall include:

(a) an intended schedule of construction. Facility permits will be reviewed by the Executive Secretary no later than 18 months after the permit is issued and periodically thereafter, to determine if the schedule of construction is reasonably being followed. Failure to comply with the schedule of construction may result in revocation of the permit;

(b) a description of on-site solid waste handling procedures during the active life of the facility;

(c) a schedule for conducting inspections and monitoring for the facility;

(d) contingency plans in the event of a fire or explosion;

(e) corrective action programs to be initiated if ground water is contaminated;

(f) contingency plans for other releases, e.g. release of explosive gases or failure of run-off containment system;

(g) a plan to control fugitive dust generated from roads, construction, general operations, and covering the waste;

(h) a plan to control wind-blown litter that includes equipment and methods to contain litter, including a schedule and methods to collect scattered litter in a timely manner;

(i) a description of maintenance of installed equipment including leachate and gas collection systems, and ground water monitoring systems;

(j) procedures for excluding the receipt of prohibited hazardous waste or prohibited waste containing PCBs;

(k) procedures for controlling disease vectors;

(l) a plan for an alternative waste handling or disposal system during periods when the solid waste facility is not able to dispose of solid waste, including procedures to be followed in case of equipment breakdown;

(m) closure and post-closure care plans;

(n) cost estimates and financial assurance as required by Subsection R315-309-2(3);

(o) a landfill operations training plan for site operators;  
and

(p) other information pertaining to the plan of operation as required by the Executive Secretary.

(3) Recordkeeping. Each owner or operator shall maintain and keep, on-site or at a location approved by the Executive Secretary, the following permanent records:

(a) a daily operating record, to be completed at the end of each day of operation, that shall contain:

(i) the weights, in tons, or volumes, in cubic yards, of solid waste received each day, number of vehicles entering, and if available, the type of wastes received each day;

(ii) deviations from the approved plan of operation;

(iii) training and notification procedures;

(iv) results of ground water and gas monitoring that may be required; and

(v) an inspection log or summary; and

(b) other records to include:

(i) documentation of any demonstration made with respect to any location standard or exemption;

(ii) any design documentation for the placement or recirculation of leachate or gas condensate into the landfill as allowed by Subsection R315-303-3(2)(b);

(iii) closure and post-closure care plans as required by Subsections R315-302-3(4) and (7);

(iv) cost estimates and financial assurance documentation as required by Subsection R315-309-2(3);

(v) any information demonstrating compliance with Class II Landfill requirements if applicable; and

(vi) other information pertaining to operation, maintenance, monitoring, or inspections as may be required by the Executive Secretary.

(4) Reporting.

(a) Each owner or operator of any facility, including a facility performing post-closure care, shall prepare an annual report and place the report in the facility's operating record. The owner or operator of the facility shall submit a copy of the annual report to the Executive Secretary by March 1 of each year for the most recent calendar year or fiscal year of facility operation.

(b) The annual report shall cover facility activities during the previous year and must include, at a minimum, the following information:

(i) name and address of the facility;

(ii) calendar year covered by the report;

(iii) annual quantity, in tons, of solid waste received;

(iv) the annual update of the required financial assurances mechanism pursuant to Subsection R315-309-2(2);

(v) results of ground water monitoring and gas monitoring;  
and

(vi) training programs or procedures completed.

(c) Since the amount of waste received must be reported in tons, the following conversion factors shall be used for waste received that is not weighted on scales.

- (i) Municipal solid waste:
  - (A) Uncompacted - 0.15 tons per cubic yard; and
  - (B) Compacted (delivered in a compaction vehicle) - 0.30 tons per cubic yard.
- (ii) Construction/demolition waste - 0.50 tons per cubic yard.
- (iii) Municipal incinerator ash - 0.75 tons per cubic yard.
- (iv) Other ash - 1.10 tons per cubic yard.
- (v) Waste delivered by a resident in a pickup truck or a single axle trailer - 0.25 tons per vehicle.
- (vi) Industrial waste - a reasonable conversion factor, based on site specific data, developed by the owner or operator of the facility.

(d) If an owner or operator of a municipal landfill or a construction/demolition landfill has documented conversion factors that are based on facility specific data, these conversion factors may be used to report the amounts of waste when approved by the Executive Secretary.

(5) Inspections.

(a) The owner or operator shall inspect the facility to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of wastes to the environment or to a threat to human health. The owner or operator must conduct these inspections with sufficient frequency, no less than quarterly, to identify problems in time to correct them before they harm human health or the environment. The owner or operator shall keep an inspection log or summary including at least the date and time of inspection, the printed name and handwritten signature of the inspector, a notation of observations made, and the date and nature of any repairs or corrective action.

The log or summary must be kept at the facility or other convenient location if permanent office facilities are not on-site, for at least three years from the date of inspection. Inspection records shall be available to the Executive Secretary or his authorized representative upon request.

(b) The Executive Secretary or any duly authorized officer, employee, or representative of the Board may, at any reasonable time and upon presentation of appropriate credentials, enter any solid waste facility and inspect the property, records, monitoring systems, activities and practices, or solid waste being handled for the purpose of ascertaining compliance with Rules R315-301 through 320 and the approved plan of operation for the facility.

(i) The inspector may conduct monitoring or testing, or collect samples for testing, to verify the accuracy of information submitted by the owner or operator or to ensure that the owner or operator is in compliance. The owner or operator may request split samples and analysis parameters on any samples collected by the inspector.

(ii) The inspector may use photographic equipment, video camera, electronic recording device, or any other reasonable means to record information during any inspection.

(iii) The results of any inspection shall be furnished promptly to the owner or operator of the facility.

(6) Recording with the County Recorder.



Not later than 60 days after certification of closure, the owner or operator of a solid waste disposal facility shall:

(a) submit plats and a statement of fact concerning the location of any disposal site to the county recorder to be recorded as part of the record of title; and

(b) submit proof of record of title filing to the Executive Secretary.

**R315-302-3. General Closure and Post Closure Requirements.**

(1) Applicability.

(a) The owner or operator of any solid waste disposal facility that requires a permit shall meet the applicable standards of Section R315-302-3 and shall provide financial assurance for closure and post-closure care costs that meets the requirements of Rule R315-309.

(b) The requirements of Subsections (2), (3), and (4) of this section apply to any solid waste management facility as defined by Subsection 19-6-502(9). The requirements of Subsections (5), (6), and (7) of this section apply to:

(i) Class I, II, IV, V, and VI Landfills;

(ii) Class III Landfills as specified in Rule R315-304: and

(iii) any landtreatment disposal facility.

(2) Closure Performance Standard. Each owner or operator shall close its facility or unit in a manner that:

(a) minimizes the need for further maintenance;

(b) minimizes or eliminates threats to human health and the environment from post-closure escape of solid waste constituents, leachate, landfill gases, contaminated run-off or waste decomposition products to the ground, ground water, surface water, or the atmosphere; and

(c) prepares the facility or unit for the post-closure period.

(3) Closure Plan and Amendment.

(a) Closure may include covering, grading, seeding, landscaping, contouring, and screening. For a transfer station or a drop box facility, closure includes waste removal and decontamination of the site, including soil analysis, ground water analysis, or other procedures as required by the Executive Secretary.

(b) Each owner or operator shall develop, keep on file and abide by a plan of closure required by Subsection R315-302-2(2)(m) which, when approved by the Executive Secretary, will become part of the permit.

(c) The closure plan shall project time intervals at which sequential partial closure, if applicable, is to be implemented and identify closure cost estimates and projected fund withdrawal intervals for the associated closure costs from the approved financial assurance instrument required by Rule R315-309.

(d) The closure plan may be amended if conditions and circumstances justify such amendment. If it is determined that amendment of a facility closure plan is required, the Executive Secretary may direct facility closure activities, in part or whole, to cease until the closure plan amendment has been reviewed and approved by the Executive Secretary.

(e) Each owner and operator shall close the facility or unit in accordance with the approved closure plan and all approved amendments.

(4) Closure Procedures.

(a) Each owner and operator shall notify the Executive Secretary of the intent to implement the closure plan in whole or part, 60 days prior to the projected final receipt of waste at the unit or facility unless otherwise specified in the approved closure plan.

(b) The owner or operator shall commence implementation of the closure plan, in part or whole, within 30 days after receipt of the final volume of waste, or for landfills, when the final elevation is attained in part or all of the facility cell or unit as identified in the approved facility closure plan unless otherwise specified in the approved closure plan. Closure activities shall be completed within 180 days from their starting time. Extensions of the closure period may be granted by the Executive Secretary if justification for the extension is documented by the owner or operator.

(c) When an owner or operator completes closure of a solid waste management unit or facility closure is completed, he shall, within 90 days or as required by the Executive Secretary, submit to the Executive Secretary:

(i) facility or unit closure plans, except for Class IIIb, IVb, and VI Landfills, signed by a professional engineer registered in the state of Utah, and modified as necessary to represent as-built changes to final closure construction as approved in the closure plan; and

(ii) certification by the owner or operator, and, except for Class IIIb, IVb, and VI Landfills, a professional engineer registered in the state of Utah, that the site or unit has been closed in accordance with the approved closure plan.

(5) Post-Closure Performance Standard. Each owner or operator shall provide post-closure activities for continued facility maintenance and monitoring of gases, land, and water for 30 years or as long as the Executive Secretary determines is necessary for the facility or unit to become stabilized and to protect human health and the environment.

(6) Post-Closure Plan and Amendment.

(a) For any disposal facility, except an energy recovery or incinerator facility, post-closure care may include:

(i) ground water and surface water monitoring;

(ii) leachate collection and treatment;

(iii) gas monitoring;

(iv) maintenance of the facility, the facility structures that remain after closure, and monitoring systems for their intended use as required by the approved permit;

(v) a description of the planned use of the property; and

(vi) any other activity required by the Executive Secretary to protect human health and the environment for a period of 30 years or a period established by the Executive Secretary.

(b) Each owner or operator shall develop, keep on file, and abide by a post-closure plan as required by Subsection R315-302-2(2)(m) and as approved by the Executive Secretary as part of the

permit. The post-closure plan shall address facility or unit maintenance and monitoring activities until the site becomes stabilized (i.e., little or no settlement, gas production or leachate generation) and monitoring and maintenance activities can be safely discontinued.

(c) The post-closure plan shall project time intervals at which post-closure activities are to be implemented and identify post-closure cost estimates and projected fund withdrawal intervals from the selected financial assurance instrument, where applicable, for the associated post-closure costs.

(d) The post-closure plan may be amended if conditions and circumstances justify such amendment. If it is determined that amendment of a facility or unit post-closure plan is required, the Executive Secretary may direct facility post-closure activities, in part or whole, to cease until the post-closure plan amendment has been reviewed and approved.

(7) Post-Closure Procedures.

(a) Each owner or operator shall commence post-closure activities after closure activities have been completed. The Executive Secretary may direct that post-closure activities cease until the owner or operator receives a notice from the Executive Secretary to proceed with post-closure activities.

(b) When post-closure activities are complete, as determined by the Executive Secretary, the owner or operator shall submit a certification to the Executive Secretary, signed by the owner or operator, and, except for Class IIIb, IVb, and VI Landfills, a professional engineer registered in the state of Utah stating why post-closure activities are no longer necessary (i.e., little or no settlement, gas production, or leachate generation).

(c) If the Executive Secretary finds that post-closure monitoring has established that the facility or unit is stabilized (i.e., little or no settlement, gas production, or leachate generation) the Executive Secretary may authorize the owner or operator to discontinue any portion or all of the post-closure maintenance and monitoring activities.

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